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An upper limit on the total width of the top quark at CDF SATOMI SHIRAISHI, CDF COLLABORATION — We present the first direct experimental upper limit on the total decay width of the top quark using 955 pb⁻¹ of the Tevatron's $p\bar{p}$ collisions taken by the CDF II detector at the Fermilab Tevatron. We identify 253 top-antitop pair candidate events. The distribution of reconstructed top quark mass from the candidate events is fitted to template representing different values of the top quark width. The Feldman-Cousins prescription is used to extract an upper limit on the top quark width at 95% confidence level for an assumed top quark mass of 175 GeV/c².

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